Like many of our colleagues in higher education, as chemical engineering educators, we often become entranced and captivated by ideas that are new – new teaching methodologies, new technologies, new innovations. While the desire to advance ourselves through the acquisition of new knowledge is both highly respectable and commendable, there is also significant value in looking backwards through the history of higher education to understand how we have evolved as college teachers and to learn how our profession, which is intrinsically linked to evaluating teaching and learning, has simultaneously advanced as well. Fortunately, educators who seek to learn about how college teaching – and in particular, undergraduate education and how it is evaluated – has evolved over the past 100 years in America will benefit from two closely related books published in 2020 by Johns Hopkins University Press.

The Amateur Hour: A History of College Teaching in America

By Jonathan Zimmerman
Johns Hopkins University Press. 312 pages
Hardcover: $34.95

Grading the College: A History of Evaluating Teaching and Learning

By Scott M. Gelber
Johns Hopkins University Press. 248 pages
Hardcover: $44.95

Reviewed by Daniel Lepek
The Cooper Union

The history of American college teaching that is described in The Amateur Hour is primarily presented in a chronological manner. From the creation of colleges during the 1800s, to the two World Wars and beyond, readers are introduced to education trends, technological teaching innovations, as well as the meaning of, and often controversial limits to, academic freedom. At the beginning of the book, the author opens with a discussion of what it means to be a “great college teacher” and suggests that, from a purely non-scientific perspective, great college teachers exhibit a unique personality, have a recognizable academic charisma, and exhibit an intangible mysticism that entrances students; or to paraphrase some early academic administrators, “One immediately knows a good teacher when one sees one!”

Moving forward, the text further elucidates what makes a good teacher from a less abstract perspective. To accomplish this, the author draws on sources such as private letters from university presidents, student evaluations, minutes from trustee meetings, campus publications, and other primary documents from different college and university archives. By consulting a wide variety of primary sources, the author strives to achieve a balance of perspectives from different university stakeholders – students, faculty, and administrators.

The chronological treatment provided by the author, which serves as a convenient way to study the evolvement of the profession over time, also exposes some flaws in higher education, such as the glacial pace at which some educational innovations, including active learning, are integrated into the college classroom. However, there are still many unique and important lessons that can be learned from this treatment. For example, by studying developments decade by decade, readers can understand the impact of the two World Wars, in particular the integration of returning veterans into the college classrooms and their desire for more “accountability” regarding teaching. Furthermore, the discussion regarding the use of television as a new technology to deliver college instruction to half a million students across the United States during the 1960s seems to resonate as an early precursor to MOOCs (Massive Open Online Courses), which evolved almost fifty years later. In addition to these unique examples, the author spends substantial time explaining how other developments impacting the “personal” aspect of teaching also began over time; examples include large lecture classes, the
use of teaching assistants, challenges to academic freedom, and the widespread usage of student course surveys and their incorporation into the promotion and tenure process. This specific aspect associated with teaching – its evaluation – serves as the focus of another text also published by Johns Hopkins University Press.

Grading the College: A History of Evaluating Teaching and Learning by Scott M. Gelber provides readers with a focused treatment of the history of evaluation of teaching and learning in American colleges between 1920-1980 and primarily concentrates on the measurement of in-class teaching and learning at the undergraduate level. This historical treatment is not provided in a chronological manner, but rather on a topic by topic basis. The topics covered by the text include: Teacher Evaluation (Chapter 1); Student Course Evaluations (Chapter 2); Standardized Testing (Chapter 3); Rubrics, Surveys, and Rankings (Chapter 4); Accreditation (Chapter 5); and the Evaluation of Teaching and Learning Since 1980 (Chapter 6).

In the introduction the author makes a case for optimism, stating that there is much to be learned from the history of the evaluation of teaching and learning. While the systematic evaluation of teaching and learning dates back to the early development and usage of student course questionnaires during the 1910s and 1920s, many more quantitative approaches for measuring the quality of teaching and learning (and universities, in general) have evolved since then. Grading the College is similar to The Amateur Hour in its historical discussion of the practices of evaluating teaching and how student course evaluations and questionnaires became more prevalent in higher education, despite some repeated, and often justified, concerns by faculty members. Both books highlight the continual struggle for colleges to identify satisfactory evaluation methods for teaching and learning. However, the similarities between the books primarily end there.

Following its discussion on evaluating teaching and learning in the classroom, Grading the College turns its focus to other aspects of testing, evaluation, and assessment. The author provides readers with a history of standardized testing in college admissions and how the data, which were originally used as a supposed indicator of student success, morphologically transformed into a larger inventory of quantitative data used to additionally evaluate the institutions themselves. The co-current development of university institutional research offices and the necessity to constantly measure institutional effectiveness contributed to the widespread usage of rubrics and surveys – both inside and outside the classroom. While institutional data were often used to determine university rankings, other approaches to measure and classify colleges, such as accreditation agencies, also became more prevalent in higher education.

Readers of both books will perhaps most likely agree with Scott Gelber’s conclusion that “the evaluation of teaching and learning ranks among the greatest unsolved problems of academia.” Those chemical engineering educators who seek to solve this great unsolved problem would benefit from reading these two historical treatises. The numerous stories contained within The Amateur Hour, which often times resemble wryly humorous academic folklore, should provide reassurance to faculty members who may have exhibited symptoms of “impostor syndrome” at the start of their careers. In addition, faculty members and administrators who are more involved with assessment, accreditation, and other aspects of institutional research would most likely find Grading the College to be a valuable addition to their academic bookshelves.

While Jonathan Zimmerman argues that, as college teachers, we are all “amateurs” due to the lack of formalized teacher training that we receive as new faculty members, I believe that there is much to be hopeful for in our discipline: chemical engineering. As chemical engineering educators, we are fortunate to have many resources to support our professional growth – the AIChE Education Division, the ASEE Chemical Engineering Division, the ASEE/AIChe Summer School for Engineering Faculty, and this journal – Chemical Engineering Education. By taking advantage of these and other resources, particularly at the early part of their careers, new faculty members can quickly transition from being “amateurs” to becoming professionals, scholars, and excellent chemical engineering educators.

276